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Titolo	Extending mechanics to minds : the mechanical foundations of psychology and economics // Jon Doyle [[electronic resource]]
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Descrizione fisica	1 online resource (xxi, 453 pages) : digital, PDF file(s)
Disciplina	006.3
Soggetti	Mechanics, Applied - Mathematics Artificial intelligence
Lingua di pubblicazione	Inglese
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Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 429-442) and index.
Nota di contenuto	Reconciling natural and mental philosophy -- Reconstructing rational mechanics -- Mechanical minds -- The metaphysics of mechanics -- Conclusion of the matter.
Sommario/riassunto	This book deploys the mathematical axioms of modern rational mechanics to understand minds as mechanical systems that exhibit actual, not metaphorical, forces, inertia, and motion. Using precise mental models developed in artificial intelligence the author analyzes motivation, attention, reasoning, learning, and communication in mechanical terms. These analyses provide psychology and economics with new characterizations of bounded rationality; provide mechanics with new types of materials exhibiting the constitutive kinematic and dynamic properties characteristic of different kinds of minds; and provide philosophy with a rigorous theory of hybrid systems combining

discrete and continuous mechanical quantities. The resulting mechanical reintegration of the physical sciences that characterize human bodies and the mental sciences that characterize human minds opens traditional philosophical and modern computational questions to new paths of technical analysis.

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